

### Remarks/Arguments

Applicants affirm the election of Group I, the generic structure Y-B-A-X, and the species shown by compound 1d in Table 1, page 73. The election is made with traverse. The office action refers to Y-B-A-X (claim 1), Y-B-A'-X' (claim 1), Z-F-E-D-C-B-A-X (claim 7), Z-C-B-A-X'' (claim 13), Z-F-E-D-C-B-A-X (claim 18) and Z-F-E-D-C-B-A'-X' (claim 18). Y-B-A-X is a generic structure that covers **Z-F-E-D-C-B-A-X** (claim 1 provides in (i) that Y can be Z-F-E-D-C-; and covers Z-C-B-A-X'' (where Y is Z-F-E-D-C- and F is absent, E is absent, D is absent, and X'' is a subgroup of the X provided in claim 1).

The Y-B-A-X and Z-F-E-D-C-B-A-X read on the elected compound. The substituents for Compound 1d is shown for Y-B-A-X where Y is Z-F-E-D-C (resulting in Z-F-E-D-C-B-A-X) as follows::

Z is CH<sub>3</sub>-C(O)-;

F is asparatic acid;

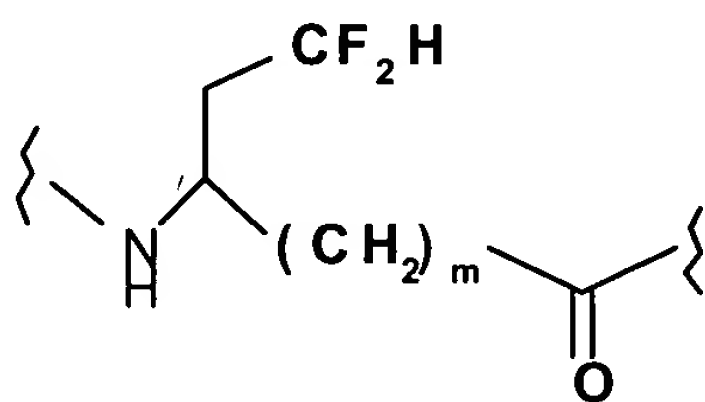
E is glutamic acid;

D is diphenylalanine;

C is glutamic acid;

B is cyclohexylalanine;

A is



, wherein m is 0; and

X is COOH.

Claims 1, 3-12 and 32-38 are compound and composition claims that read on the elected species. Claims 39-41 are method claims that read on the elected species.

The claims were amended to be consistent with the election of Y-B-A-X, correct some formalities noted by the examiner, and/or clarify the claims. Claim 1 was amended to remove reference to the non-elected genus (Formula II) and correct an informality noted by the examiner; claim 2 further describing Y-B-A'-X' was canceled; claim 5 was amended to remove

reference to Y-B-A'-X' and change the claim dependency; claim 7 was amended to revise its dependency and insert a comma after "dichlorophenylalanine"; claim 9 was amended to revise the dependency; claims 14-19, not covering the elected species, were cancelled without prejudice to future prosecution; claim 21 was amended to correct an informality noted by the examiner; and claims 28-30 were canceled without prejudice to future prosecution.

New claims 32-41 were added. New claims 32 and 33 are compound claims that read on the elected compound. New claims 34-38 are pharmaceutical composition claims that refer to an earlier compound claim reading on the elected compound. New claims 39 to 40 are method of treatment claims that refer to a pharmaceutical composition claim.

#### *Information Disclosure Statement*

The prior office action indicated that an IDS was not filed. Enclosed is a copy of an IDS previously submitted September 15, 2003 and confirmation that the Patent Office received the prior IDS. Applicants request that the references cited in the IDS be made of record.

It is respectfully submitted that because the IDS was submitted prior to the issuance of an Office Action no fees are due in connection with its submission. However, if the Patent Office determines that fees are due, Applicants authorize deposit account 13-2755 be charged for fees due in connection with the enclosed IDS.

#### *Specification*

The specification was objected to for failing to provide sequence identifiers on page 26, line, 1, page 27, lines 1-4, page 29, lines 17-29, page 42, lines 7-10, page 44, example 1, pages 46-66, examples 2-9 and pages 73-76 table 1. This objection is respectfully traversed for those sequences with fewer than four specifically defined amino acids. Specifically defined amino acids are those amino acids other than "Xaa".

The exclusion from the sequence rules of sequences with fewer than four specifically defined amino acids is provided in 37 CFR 1.821 "Nucleotide and/or Amino Acid Sequence Disclosures in Patent Applications":

(a) Nucleotide and/or amino acid sequences as used in §§ 1.821 through 1.825 are interpreted to mean an unbranched sequence of four or more amino acids or an unbranched sequence of ten or more nucleotides. Branched sequences are specifically excluded from this definition. **Sequences with fewer than four specifically defined nucleotides or amino acids are specifically excluded from this section. "Specifically defined" means those amino acids other than "Xaa" and those nucleotide bases other than "n" defined in accordance with the World Intellectual Property Organization (WIPO) Handbook on Industrial Property Information and Documentation, Standard ST.25: Standard for the Presentation of Nucleotide and Amino Acid Sequence Listings in Patent Applications (1998), including Tables 1 through 6 in Appendix 2, herein incorporated by reference. (Hereinafter "WIPO Standard ST.25 (1998)").** [Emphasis added.]

Applicants have provided sequence identifiers for compounds noted by the Examiner on pages 26, 27, 29, 42, 44, and 46. In addition, a legend was inserted to end of Table 1 providing identifiers for Table 1 compounds for which the sequence rules apply.

Some of the provided sequence identifiers also contain additional description. On pages 26, 27, and 29, SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, and SEQ ID NO: 5 were inserted and indicated to be "core", because as show in the structures the indicated sequence is part of a larger group. Sequences identifiers for SEQ ID NO: 5, SEQ ID NO: 6 and SEQ ID NO: 7 provided on pages 42, 44 and 45 were indicated to be acetylated. The legend provided for Table 1 also provides additional information for sequence identifiers.

### *Claim Objections*

Objections were provided for (a) claims 1 and 21; (b) claims 2-16, 18-25, 28 and 31, and (c) claims 1-12, 18 and 19. These objections are respectfully traversed.

Claims 1 and 21 were amended to provide a colon as suggested by the Examiner.

Claims 2-16, 18-25, 28 and 31 were objected to for depending from a rejected base claim. It is respectfully submitted that the base claim is in condition for allowance.

Claims 1-12, 18, and 19 were objected to for citing a general structure allowing for peptides that consist of four or more naturally occurring amino acids without providing a sequence listing. As noted above in the discussion concerning the specification and the sequence

rules, the sequence rules do not apply to sequences having less than 4 specifically defined amino acids, and specifically defined amino acids are those amino acids other than "Xaa".

Generic structures having less than 4 specifically defined amino acids do not need to comply with the sequence rules. In the case where more than one amino acid is possible for a position the amino acid is not specifically defined and Xaa would be indicated with a further description. Thus, the possibility of four naturally occurring amino acid does not mandate compliance with the sequence rules.

#### *Claim Rejections - 35 USC § 112*

Claims 1, 17 and 29 stand rejected for allegedly not pointing out the claimed invention. Claim 1 was rejected due to reference to "hydrocarbyl", claim 17 was rejected for failing to provide a specific claim number, and claim 29 was rejected for referring to "preventing".

The amendment to claim 1 removes reference to "hydrocarbyl". As discussed above, the amendment was made to be consistent with the elected genus. The term "hydrocarbyl" was used to further define A' which is part of the non-elected genus Y-B-A'-X'.

Claim 17 was canceled without prejudice to future prosecution.

Claim 29 was cancelled without prejudice to future prosecution. New claims 39-41 are along the lines of claim 29, but use the term "ameliorating" as suggested by the examiner.

#### *Claim Rejections - 35 USC § 102*

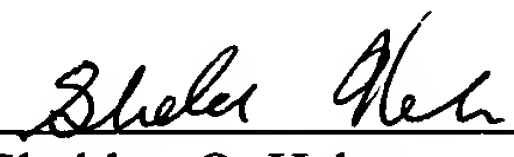
Claim 1 stands rejected as allegedly anticipated by Hoss *et al.* (Journal of Fluorine Chemistry (1993), V. 61 (1-2) pages 163-170). The examiner argues that Hoss *et al.* provides for of Y-B-A'-X'. The rejection is respectfully traversed.

As noted above, applicants have amended claim 1 to remove reference to Y-B-A'-X' to be consistent with the elected genus. Additionally, the rejection fails to indicate where Hoss *et al.* provides for X'.

Accordingly the claims are in condition for allowance. Please charge deposit account 13-2755 for fees due in connection with this amendment. If any time extensions are needed for the

timely filing of the present amendment, Applicants petition for such extensions and authorize the charging of deposit account 13-2755 for the appropriate fees.

Respectfully submitted,

By   
Sheldon O. Heber  
Reg. No. 38,179  
Attorney for Applicants

Merck & Co., Inc.  
P.O. Box 2000  
Rahway, NJ 07065-0907  
(732) 594-1958